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10/735,768	12/16/2003	Sung-Kyung Jang	P-0498	4071

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FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER	
RIZK, SAMIR WADIE	
ART UNIT	**PAPER NUMBER**
2133	

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/735,768	JANG, SUNG-KYUNG	
	Examiner	Art Unit	
	Sam Rizk	2133	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/16/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTIONS

- Claims 1-29 have been submitted for examination
- Claims 1-29 have been rejected

Claim Objections

1. Claim 9 should read:

   "The ~~apparatus~~ **method** of claim 8."

   As recited in claim 8.

   Appropriate correction is required.

2. Claim 13 should read:

   "The ~~apparatus~~ **method** of claim 12."

   As recited in claim12.

   Appropriate correction is required.

3. Claim 17 should read:

   "The ~~apparatus~~ **method** of claim 16."

   As recited in claim16.

   Appropriate correction is required.

4. Claim 20 is objected to because of the following informalities:

   Claim 20 depend from claim 1 and is claiming a system configured to implement a method with its dependent claims. Claim 20 should rewritten as an apparatus in independent form with it's own dependent claims

   Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Kuo US patent no. 6987981 (Hereinafter Kuo)

6. In regard to claim 1, Kuo teaches:

- A method comprising:
- synchronizing a first device and a second device, wherein:

(Note: Abstract in Kuo)

- compensating for synchronization errors, if the first device and the second device both initiate said synchronizing at substantially the same time.

(Note: Figures 6a & 6b)

7. In regard to claim 2, Kuo teaches:

- The method of claim 1, whereto the first device and the second device are wireless devices.

(Note: Figure 2 in Kuo)

8. In regard to claim 3, Kuo teaches:

- The method of claim 2, wherein:
- the first device is a user equipment device; and
- The second device is a universal mobile telecommunications system terrestrial access network device.

(Note: Figure 2 in Kuo)

9. In regard to claim 4, Kuo teaches:

- The method of claim 1, wherein said compensating for synchronization errors comprises canceling a second initial synchronization message, if:
- the first device prepares a first initial synchronization message for transmission to the second device;
- the first device transmits the first initial synchronization message;
- the second device prepares the second initial synchronization message for transmission to the first device; and
- the second device receives the first initial synchronization message prior to transmitting the second initial synchronization message to the first device.

(Note: Figure 6c and col.4, lines (19-35) in Kuo)

10. In regard to claim 5, Kuo teaches:

- The method of claim 4, wherein the first initial synchronization comprises first uplink information.

(Note: Figure 3, reference characters (44 & 48) in Kuo)

11. In regard to claim 6, Kuo teaches:

- The method of claim 5, wherein the uplink information comprises an uplink hyper frame number of the first device.

(Note: Figure 3, reference characters (44 & 48) in Kuo)

12. In regard to claim 7, Kuo teaches:

- The method of claim 4, wherein the first initial synchronization message and the second initial synchronization message are RESET PDUs.

(Note: Figure 5, reference characters (98 & 106) in Kuo)

13. In reference to claim 8, Kuo teaches:

- The method of claim 1, wherein said compensating for synchronization errors comprises:
- incrementing upload information and download information in the first device and the second device only if:
- the first device sends a first initial synchronization message to the second device, wherein the first initial synchronization message comprises the upload information, and the second device is set to the upload information;
- the second device sends a second initial synchronization message to the first device prior to receiving the first initial synchronization message, wherein the second initial synchronization message

comprises the download information, and the first device is set to the download information;

- the second device sends a first acknowledgment synchronization message to the first device in response the first initial synchronization message, wherein the first acknowledgement message comprises the download information, and the first device is set to the download information; and
- the second device sends a first acknowledgment synchronization message to the first device in response the first initial synchronization message, wherein the first acknowledgement message comprises the download information, and the first device is set to the download information.

(Note: Figure 6c in Kuo)

14. In regard to claim 9, Kuo teaches:

- The apparatus of claim 8, wherein incrementing upload information and download information in the first device and the second device is incrementing upload information and download information in the first device and the second device by 1.

(Note: Figure 6a, reference character (154) in Kuo)

15. In regard to claim 10, Kuo teaches:

- The method of claim 8, wherein at least one of:

- the uplink information comprises an uplink hyper frame number of the first device;
- the downlink information comprises a downlink hyper frame number of the second device.

(Note: Figure 6a, reference character (154) in Kuo)

16. In regard to claim 11, Kuo teaches;

- The method of claim 8, wherein at least one of.
- the first initial synchronization message and the second initial synchronization message are RESET PDUs; and
- the first acknowledge synchronization message and the second acknowledge synchronization are RESET ACK PDUs.

(Note: Figure 5, reference characters (98 & 106 & 114) in Kuo)

17. In regard to claim 12, Kuo teaches:

- The method of claim 1, wherein said compensating for synchronization errors comprises:
- incrementing only the upload information in the second device and incrementing only the downlink information in the first device only if:
- the first device sends a first initial synchronization message to the second device, wherein the first initial synchronization message comprises the upload information, and the second device is set to the upload information;

- the second device sends a second initial synchronization message to the first device prior to receiving the first initial synchronization message, wherein the second initial synchronization message comprises the download information, and the first device is set to the download information;
- the second device sends a first acknowledgment synchronization message to the first device in response the first initial synchronization message, wherein the first acknowledgement message comprises the download information, and both the uplink information and the downlink information set in the second device are incremented; and
- the first device sends a second acknowledgment synchronization message to the second device in response the second initial synchronization message, wherein the second acknowledgement message comprises the upload information, and both the uplink information and the downlink information set in the first device are incremented;
- the first device is set to the download information upon receipt of the first acknowledgment synchronization message; and
- the second device is set to the uplink information upon receipt of the second acknowledgment synchronization message.

(Note: Figures 6a-6d in Kuo)

18. In regard to claim 13, Kuo teaches:

- The apparatus of claim 12, wherein incrementing upload information or incrementing the download information is incrementing the upload information or incrementing the download information by 1.

(Note: Figure 6a, reference characters (154 & 152 and Figure 6b, reference characters (186 & 184) and Figure 6d reference character (262) in Kuo)

19. In regard to claim 14, Kuo teaches:

- The method of claim 12, wherein at least one of:
- the uplink information comprises an uplink hyper frame number of the first device;
- the downlink information comprises a downlink hyper frame number of the second device.

(Note: Figure 6a, reference characters (154 & 152 and Figure 6b, reference characters (186 & 184) and Figure 6d reference character (262) in Kuo)

20. In regard to claim 15, Kuo teaches:

- The method of claim 12, wherein at least one of:
- the first initial synchronization message and the second initial synchronization message are RESET PDUs; and
- the first acknowledge synchronization message and the second acknowledge synchronization are RESET ACK PDUs.

(Note: Figures 6a-6d in Kuo)

21. In regard to claim 16, Kuo teaches;

- The method of claim 1, wherein said compensating for synchronization errors comprises:
- incrementing only the upload information in the second device and incrementing only the downlink information in the first device only if:
- the first device sends a first initial synchronization message to the second device, wherein the first initial synchronization message comprises the upload information, and the second device is set to the upload information;
- the second device sends a second initial synchronization message to the first device prior to receiving the first initial synchronization message, wherein the second initial synchronization message comprises the download information, and the first device is set to the download information;
- both the uplink information and the downlink information set in the second device are incremented, the second device sends a first acknowledgment synchronization message to the first device in response the first initial synchronization message, and wherein the first acknowledgement message comprises the incremented download information set in the second device; and
- both the uplink information and the downlink information set in the first device are incremented, the first device sends a second

acknowledgment synchronization message to the second device in response the second initial synchronization message, wherein the second acknowledgement message comprises the incremented upload information set in the first device, and;

- the first device is set to the download information upon receipt of the first acknowledgment synchronization message; and
- the second device is set to the uplink information upon receipt of the second acknowledgment synchronization message.

(Note: Figures 6a-6d in Kuo)

22. Claim 17 is rejected for the same reasons as per claim 13.

23. Claim 18 is rejected for the same reasons as per claim 14.

22. Claim 19 is rejected for the same reasons as per claim 15.

23. Claims 20 and 21 are rejected for the same reasons as per claim 1.

25. In regard to claim 22, Kuo teaches:

- A failsafe radio link control (RLC) reset method between two RLC peer entities, comprising:
- independently determining at both of the two RLC peer entities whether or not a RLC reset is required between the two RLC peer entities;
- independently initiating, at substantially the same time, a RLC reset procedure at each of the two RLC entities if it is determined that a RLC

reset is required; and synchronizing the two RLC peer entities without failure.

(Note: Figure 4 in Kuo)

26. In regard to claim 23, Kuo teaches:

- The failsafe RLC reset method of claim 22, wherein each of the two RLC peer entities has a pair of hyper frame numbers (HFNs).

(Note: Figure 4, reference characters (64 & 66) in Kuo)

27. In regard to claim 24, Kuo teaches:

- The failsafe RLC reset method of claim 23, wherein initiating a RLC reset procedure at each of the two RLC entities includes:
- transmitting from a first RLC peer entity of the two RLC entities, a first RESET PDU with a first RLC side first HFN;
- canceling at a second RLC peer entity of the two RLC entities, transmission of a second RESET PDU when the second RLC peer entity receives the first RESET PDU before transmitting the second RESET PDU.

(Note: Figure 6c in Kuo)

28. In regard to claim 25, Kuo teaches:

- The failsafe RLC reset method of claim 24, wherein synchronizing the two RLC peer entities:

- setting at the second RLC peer entity, a second RLC side first HFN to a value equal to the first RLC side first HFN contained in the first RESET PDU upon reception of the first RESET PDU;
- transmitting from the second RLC peer entity, an RESET ACK PDU with a second RLC side second HFN in response to the first RESET PDU;
- increasing by I the second RLC side first HFN and a second RLC side second HFN of the second RLC peer entity;
- setting at the first RLC peer entity, a first RLC side second HFN to a value equal to the second RLC side second HFN contained in the RESET ACK PDU upon receipt of the RESET ACK PDU.

(Note: Figure 6c in Kuo)

29. In regard to claim 26, Kuo teaches;

- The failsafe RLC reset method of claim 23, wherein initiating a RLC reset procedure at each of the two RLC entities includes:
- transmitting from a first RLC peer entity of the two RLC entities a first RESET PDU with a first RLC side first HFN; and
- transmitting from a second RLC peer entity, a second RESET PDU with a second RLC side second HFN before receiving the first RESET PDU.

(Note: Figure 6c or 6d in Kuo)

30. Claim 27 is rejected for the same reasons as per claims 8 & 9.

31. Claim 28 is rejected for the same reasons as per claims 8 & 9.

32. Claim 29 is rejected for the same reasons as per claims 8 & 9.

Conclusion

33. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Wu, US publication no. 2004/0203623, teaches scheme to retransmit radio resource control messages during a radio link control reset in a wireless communication system.
- Wu, US publication no. 2003/0177437, teaches erroneous packet data convergence protocol data unit handling scheme in a wireless communication system.
- Wu, US publication no. 2003/0206534, teaches scheme to handle radio link control service data units upon reception of a radio link control reset or reset acknowledge protocol data unit in a wireless communication system.
- Ho, US publication no. 2003/0236085, teaches method for synchronizing a security start value in a wireless communication network.
- Yi et al., US publication no. 2003/0157927, teaches method for relocating SRNS in a mobile communication system.
- Kuo, US publication no. US 2004/0203971, teaches method for determining RLC entity re-establishment during SRNS relocation.

- Mikola et al., US patent no. 6862450, teaches resetting signaling link upon SRNS relocation procedure.
- Sarkkinen et al., US publication no. 2004/0042491, teaches synchronization of data packet numbers in packet switched data transmission.
- Jiang, US publication no. 2003/0091048, teaches detection of ciphering parameter unsynchronization in a RLC entity.
- Willenegger et al., US publication no. 2006/0189272, teaches multimedia broadcast and multicast service (MBMS) in a wireless communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Rizk whose telephone number is (571) 272-8191. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronics Business Center (EBC) at 866-217-9197 (toll-free)

Sam Rizk, MSEE, ABD

Examiner

ART UNIT 2133

9/19/06

ALBERT DECADY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100